

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A digital camera for photo-electrically transducing an image of an object field formed by an image pick-up lens into an image signal representing the object field, comprising:

an image sensor for generating an image signal representing the image of the object field formed;

a signal processor for processing the image signal representing the image of the object field to produce image data;

an output circuit for outputting the image data produced;

a controller responsive to operating information for controlling said image sensor, said signal processor and said output circuit to generate a shading correction condition and a white balance adjustment condition or to correct the image signal representing the image of the object field;

a storage for storing the adjustment condition and the shading correction condition;

and

an operating unit comprising an automatic/manual white balance switch for receiving the operating information corresponding to an operation by an operator,

said controller producing, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object placed in front of the image pick-up lens, generating the shading correction condition and the white balance adjustment condition for correcting the image signal to be generated at a time of actual imaging, based on the image signal generated by said image sensor at a time of the calibration imaging, and causing the produced shading correction condition to be stored in

said controller reading out, when commanding the actual imaging to cause the generated image signal to be processed by said signal processor, the shading correction condition and the white balance adjustment condition stored in said storage to send out a read-out correction condition to said signal processor and

said signal processor correcting shading of the image signal for the actual imaging, in accordance with the shading condition supplied from said controller, and also correcting white balance of the image signal for the actual imaging, in accordance with the white balance adjustment condition supplied from said controller.

2. (Original) The digital camera according to claim 1, wherein, in the calibration imaging, said controller produces the shading correction condition associated with a plurality of stop numbers to cause the produced correction condition to be stored in said storage.

3. (Original) The digital camera according to claim 2, wherein said controller reads out the shading correction condition, associated with the stop number used in the actual imaging, from said storage, to send out the read-out correction condition to said signal processor.

4. (Original) The digital camera according to claim 1, wherein said controller in the calibration imaging produces the white balance adjustment condition associated with a plurality of stop numbers to cause the produced correction condition to be stored in said storage.

5. (Original) The digital camera according to claim 4, wherein said controller reads out the white balance adjustment condition, associated with the stop number used at the time of the actual imaging, from said storage, to send out the read-out correction condition to said signal processor.

6. (Currently Amended) A method of controlling imaging with an image sensor photo-electrically transducing an optical image formed on the image sensor through an imaging lens to generate an image signal, comprising:

recognizing operating information commanding manual white balance adjustment;

imaging an object for use in calibrating the manual white balance adjustment;

generating a shading correction condition for correcting shading of an image signal generated in actual imaging, and a white balance adjustment condition for adjusting white balance of the image signal generated in the actual imaging, based on the image signal generated by said imaging;

controlling the actual imaging responsive to operating information corresponding to an operation on an automatic/manual white balance switch by an operator; and

processing the image signal generated by said controlling the actual imaging, and correcting the shading of the image signal generated by said controlling the actual imaging, based on the shading correction condition and the white balance adjustment condition.

7. (Previously Presented) The method according to claim 6, wherein said imaging said object produces the shading correction condition associated with a plurality of stop numbers.

8. (Previously Presented) The method according to claim 7, wherein said processing the image signal corrects the image signal based on the shading correction condition associates with one of the stop numbers which was used in said actual controlling the imaging.
9. (Previously Presented) The method according to claim 6, wherein said imaging an object produces the white balance adjustment condition associated with a plurality of stop numbers.
10. (Previously Presented) The method according to claim 9, wherein said processing the image signal corrects the image signal based on the white balance adjustment condition associated with one of the stop numbers which was used in said controlling the actual imaging.
11. (Previously Presented) The digital camera according to claim 1, wherein said shading correction is automatically carried out in conjunction with said white balance adjustment.
12. (Previously Presented) The digital camera according to claim 1, wherein said manual white balance adjustment is carried out for manually setting the white balance under a stringent condition.
13. (Previously Presented) The digital camera according to claim 1, wherein the shading correction condition is formulated and stored for correcting and adjusting the image signal data which is accurately corrected and adjusted under a variable imaging condition.

14. (Previously Presented) The digital camera according to claim 1, wherein in performing the manual white balance adjustment, the controller produces said shading correction condition and said white balance adjustment condition, based on image signal data obtained on performing the condition-finding or calibrating image pickup operation for the purpose of said manual white balance adjustment, to cause so-produced conditions to be stored in a memory.
15. (Previously Presented) The digital camera according to claim 1, wherein the controller forwards a control signal including said shading correction condition stored in the memory to the signal processor.
16. (Previously Presented) The digital camera according to claim 1, wherein the signal processor comprises a shading corrector for correcting the shading, and a white balance adjustment unit for adjusting the white balance of the image signal data corrected in shading.
17. (Previously Presented) The digital camera according to claim 16, wherein the shading corrects the image signal data, from pixel to pixel, based on the shading correction condition carried on the control signal supplied from the controller.
18. (Previously Presented) The digital camera according to claim 16, wherein the white balance adjustment unit adjusts the shading-corrected image signal data, from pixel to pixel, based on the white balance adjustment condition supplied from the controller.
19. (Previously Presented) The digital camera according to claim 1, wherein the signal

processor comprises a gamma corrector, a converter, an image size reducing circuit, and a compander.

20. (Previously Presented) The digital camera according to claim 1, wherein whether the shading correction condition is to be calculated simultaneously to allow the shading correction condition to be selected singly, is user selectable.

21. (Previously Presented) The digital camera according to claim 1, wherein said controller measures the luminance level of an object field based on a photographed image represented by image signal data supplied thereto from the signal processor.